

ATG Met	ATT Ile	GAA Glu	GAC Asp	CCT Pro 5	ATG Met	GAC Asp	TGG Trp	GCT Ala	TTT Phe 10	CCG Pro	AGG Arg	ATA Ile	AAG Lys	AGA Arg 15	CTG Leu	48	
CCT Pro	CAG Gln	TAT Tyr	GTC Val 20	TTC Phe	TCT Ser	CTC Leu	GTT Val	AAC Asn 25	GAA Glu	CTC Leu	AAG Lys	TAC Tyr	AAG Lys 30	CTA Leu	AGG Arg	96	은
CGT Arg	GAA Glu	GGC Gly 35	Glu	GAT Asp	GTA Val	GTG Val	GAT Asp 40	CTT Leu	GGT Gly	ATG Met	GGC Gly	AAT Asn 45	CCT Pro	AAC Asn	ATG Met	144	CENTER 1600/2900
CCT Pro	CCA Pro 50	GCA Ala	AAG Lys	CAC His	ATA Ile	ATA Ile 55	GAT Asp	AAA Lys	CTC Leu	TGC Cys	GAA Glu 60	GTG Val	GCT Ala	CAA Gln	AAG Lys	192	1600/29
CCG Pro 65	AAC Asn	GTT Val	CAC His	GGA Gly	TAT Tyr 70	TCT Ser	GCG Ala	TCA Ser	AGG Arg	GGC Gly 75	ATA Ile	CCA Pro	AGA Arg	CTG Leu	AGA Arg 80	240	Š
AAG Lys	GCT Ala	ATA Ile	TGT Cys	AAC Asn 85	Phe	TAC Tyr	GAA Glu	GAA Glu	AGG Arg 90	TAC Tyr	GGA Gly	GTG Val	AAA Lys	CTC Leu 95	GAC Asp	288	
Pro	Glu	Arg	Glu 100	Ala	Ile	Leu	Thr	Ile 105	Gly	Ala		Glu	110	Tyr	ser	336	t
His	Leu	Met 115	Leu	Ala	Met	Ile	Ser 120	Pro	Gly	Asp	Thr	Val 125	Ile	Val	Pro	384	
AAT Asn	CCC Pro 130	Thr	TAT	CCT	ATT Ile	CAC His 135	TAT Tyr	TAC Tyr	GCT Ala	CCC Pro	ATA Ile 140	ATT Ile	GCA Ala	GGA Gly	GGG Gly	432	•
GAA Glu 145	GTT Val	CAC	TCA Ser	ATA Ile	CCC Pro 150	Leu	AAC Asn	TTC Phe	TCG Ser	GAC Asp 155	Asp	CAA Gln	GAT Asp	CAT His	CAG Gln 160	480	
GAA Glu	GAG Glu	TTT Phe	TTA Leu	AGG Arg 165	Arg	CTT Leu	TAC Tyr	GAG Glu	ATA Ile 170	Val	Lys	ACC Thr	GCG Ala	ATG Met 175	CCA Pro	5 <i>3</i> /8	
AAA Lys	CCC	AAG Lys	GCT Ala 180	Val	GTC Val	ATA Ile	AGC Ser	TTT Phe 185	Pro	CAC His	AAT Asn	CCA Pro	ACG Thr 190	ACC Thr	ATA Ile	576	
ACG Thr	GTA Val	GAA Glu 195	Lys	GAC Asp	TTT Phe	TTT Phe	AAA Lys 200	Glu	ATA Ile	GTT Val	AAG Lys	TTT Phe 205	Ala	AAG Lys	GAA Glu	624	
His	Gly 210	Leu	Trp	ITe	Ile	His 215	Asp	Phe	Ala	Tyr	220	Asp	lle	. Ala	TTT Phe	672	
GAC Asp 225	Gly	TAC	Lys	Pro	CCC Pro 230	Ser	ATA Ile	Leu	GAA Glu	ATA Ile 235	Glu	GGT Gly	GCT Ala	' AAA Lys	GAC Asp 240	720	

FIG. 1A



MAR 0 4 2003

TECH CENTER 1600/2900

GTT Val	GCG Ala	GTT Val	GAG Glu	CTC Leu 245	TAC Tyr	TCC Ser	ATG Met	TCA Ser	AAG Lys 250	GGC Gly	TTT Phe	TCA Ser	ATG Met	GCG Ala 255	GGC Gly	768
TGG Trp	AGG Arg	GTA Val	GCC Ala 260	TTT Phe	GTC Val	GTT Val	GGA Gly	AAC Asn 265	GAA Glu	ATA Ile	CTC Leu	ATA Ile	AAA Lys 270	AAC Asn	CTT Leu	816
GCA Ala	CAC His	CTC Leu 275	AAA Lys	AGC Ser	TAC Tyr	TTG Leu	GAT Asp 280	TAC Tyr	GGT Gly	ATA Ile	TTT Phe	ACT Thr 285	CCC Pro	ATA Ile	CAG Gln	864
GTG Val	GCC Ala 290	TCT Ser	ATT Ile	ATC Ile	GCA Ala	TTA Leu 295	GAG Glu	AGC Ser	CCC Pro	TAC Tyr	GAA Glu 300	ATC Ile	GTG Val	GAA Glu	AAA Lys	912
ACC Thr 305	GCA Ala	AAG Lys	GTT Val	TAC Tyr	CAA Gln 310	AAA Lys	AGA Arg	AGA Arg	GAC Asp	GTT Val 315	CTG Leu	GTG Val	GAA Glu	GGG Gly	TTA Leu 320	960
AAC Asn	AGG Arg	CTC Leu	GGC Gly	TGG Trp 325	AAA Lys	GTA Val	AAA Lys	AAA Lys	CCT Pro 330	AAG Lys	GCT Ala	ACC Thr	ATG Met	TTC Phe 335	GTC Val	1008
TGG Trp	GCA Ala	AAG Lys	ATT Ile 340	CCC	GAA Glu	TGG Trp	ATA Ile	AAT Asn 345	ATG Met	AAC Asn	TCT Ser	CTG Leu	GAC Asp 350	TTT Phe	TCC Ser	1056
TTG Leu	TTC Phe	CTC Leu 355	Leu	AAA Lys	GAG Glu	GCG Ala	AAG Lys 360	GTT Val	GCG Ala	GTA Val	TCC Ser	CCG Pro 365	GGT Gly	GTG Val	GGC Gly	1104
TTT Phe	GGT Gly 370	Gln	TAC Tyr	GGA Gly	GAG Glu	GGG Gly 375	TAC Tyr	GTA Val	AGG Arg	TTT Phe	GCA Ala 380	CTT Leu	GTA Val	GAA Glu	TAA Asn	1152
GAA Glu 385	His	AGG Arg	ATC Ile	AGA Arg	CAG Gln 390	GCT Ala	ATA Ile	AGG Arg	GGA Gly	ATA Ile 395	AGG Arg	AAA Lys	GCC Ala	TTC Phe	AGA Arg 400	1200
AAA Lys	CTC	CAG Gln	AAG Lys	GAG Glu 405	AGG Arg	AAA Lys	CTT Leu	GAA Glu	CCT Pro 410	GAG Glu	AGA Arg	AGT Ser	GCT Ala 414	TAA End		1245

FIG. 1B



																TECH CENTER 1600/2900
ATG Met	GAC Asp	AGG Arg	CTT Leu	GAA Glu 5	AAA Lys	GTA Val	TCA Ser	CCC Pro	TTC Phe 10	ATA Ile	GTA Val	ATG Met	GAT Asp	ATC Ile 15	CTA Leu	TER 1600
GCT Ala	CAG Gln	GCC Ala	CAG Gln 20	AAG Lys	TAC Tyr	GAA Glu	GAC Asp	GTA Val 25	GTA Val	CAC His	ATG Met	GAG Glu	ATA Ile 30	GGA Gly	GAG Glu	96900 96900
CCC Pro	GAT Asp	TTA Leu 35	GAA Glu	CCG Pro	TCT Ser	CCC Pro	AAG Lys 40	GTA Val	ATG Met	GAA Glu	GCT Ala	CTG Leu 45	GAA Glu	CGT Arg	GCG Ala	144
GTG Val	AAG Lys 50	GAA Glu	AAG Lys	ACG Thr	TTC Phe	TTC Phe 55	TAC Tyr	ACC Thr	CCT Pro	GCT Ala	CTG Leu 60	GGA Gly	CTC Leu	TGG Trp	GAA Glu	192
CTC Leu 65	AGG Arg	GAA Glu	AGG Arg	ATA Ile	TCG Ser 70	GAG Glu	TTT Phe	TAC Tyr	AGG Arg	AAA Lys 75	AAG Lys	TAC Tyr	AGC Ser	GTT Val	GAA Glu 80	240
GTT Val	TCT Ser	CCA Pro	GAG Glu	AGA Arg 85	GTC Val	ATC Ile	GTA Val	ACT Thr	ACC Thr 90	GGA Gly	ACT Thr	TCG Ser	GGA Gly	GCG Ala 95	TTT Phe	288
CTC Leu	GTA Val	GCC Ala	TAC Tyr 100	Ala	GTA Val	ACA Thr	CTA Leu	AAT Asn 105	GCG Ala	GGA Gly	GAG Glu	AAG Lys	ATA Ile 110	ATC Ile	CTC Leu	336
CCA Pro	GAC Asp	CCC Pro 115	Ser	TAC Tyr	CCC Pro	TGT Cys	TAC Tyr 120	Lys	AAC Asn	TTT Phe	GCC Ala	TAC Tyr 125	CTC Leu	TTA Leu	GAC Asp	384
GCT Ala	CAG Gln 130	Pro	GTT Val	TTC Phe	GTA Val	AAC Asn 135	GTT Val	GAC Asp	AAG Lys	GAA Glu	ACG Thr 140	AAT Asn	TAC Tyr	GAA Glu	GTA Val	432
AGG Arg 145	AAA Lys	GAG Glu	ATG Met	ATA Ile	GAA Glu 150	GAC Asp	ATT Ile	GAT Asp	GCG Ala	AAA Lys 155	Ala	CTT Leu	CAC His	ATT Ile	TCC Ser 160	480
TCG Ser	CCT Pro	CAA Gln	AAC Asn	CCT Pro 165	Thr	GGC Gly	ACA Thr	CTC Leu	TAC Tyr 170	TCA Ser	CCT	GAA Glu	ACC Thr	CTG Leu 175	AAG Lys	528
GAA Glu	CTT Leu	GCG Ala	GAG Glu 180	Tyr	TGC Cys	GAA Glu	GAG Glu	AAG Lys 185	Gly	ATG Met	TAC Tyr	TTC Phe	ATA Ile 190	TCC Ser	GAC Asp	576
GAG Glu	ATT Ile	TAC Tyr 195	His	GGA Gly	CTC Leu	GTT Val	TAC Tyr 200	Glu	GGT Gly	AGG Arg	GAG Glu	CAC His 205	ACA Thr	GCA Ala	CTT Leu	624
GAG Glu	TTC Phe 210	Ser	GAC Asp	AGG Arg	GCT Ala	ATT Ile 215	Val	ATA Ile	AAC Asn	GGG Gly	TTT Phe 220	TCT Ser	AAG Lys	TAC Tyr	TTC Phe	672
TGT Cys 225	Met	CCA	GGT Gly	TTC Phe	AGG Arg 230	Ile	GGG Gly	TGG Trp	ATG Met	ATA Ile 235	Val	CCG Pro	GAA Glu	GAA Glu	CTC Leu 240	720

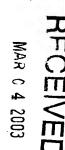
FIG. 2A

TECH CENTER 1600/2900



GTG Val	AGA Arg	AAG Lys	GCG Ala	GAA Glu 245	ATA Ile	GTA Val	ATT Ile	CAG Gln	AAC Asn 250	GTA Val	TTT Phe	ATA Ile	TCT Ser	GCC Ala 255	CCG Pro	768
ACG Thr	CTC Leu	AGT Ser	CAG Gln 260	TAC Tyr	GCC Ala	GCC Ala	CTT Leu	GAG Glu 265	GCT Ala	TTT Phe	GAT Asp	TAC Tyr	GAG Glu 270	TAT Tyr	TTG Leu	816
GAG Glu	AAG Lys	GTA Val 275	AGA Arg	AAA Lys	ACC Thr	TTT Phe	GAA Glu 280	GAG Glu	AGG Arg	AGG Arg	AAC Asn	TTC Phe 285	CTT Leu	TAT Tyr	GGG Gly	864
GAA Glu	CTG Leu 290	AAA Lys	AAA Lys	CTC Leu	TTC Phe	AAG Lys 295	ATA Ile	GAC Asp	GCG Ala	Lys Lys	CCT Pro 300	CAG Gln	GGA Gly	GCT Ala	TTT Phe	912
TAC Tyr 305	GTA Val	TGG Trp	GCA Ala	AAC Asn	ATA Ile 310	AGT Ser	GAT Asp	TAC Tyr	TCC Ser	ACA Thr 315	GAT Asp	AGC Ser	TAC Tyr	GAA Glu	TTT Phe 320	960
GCT Ala	TTA Leu	AAA Lys	CTT Leu	TTA Leu 325	AGG Arg	GAG Glu	GCG Ala	AGG Arg	GTG Val 330	GCG Ala	GTA Val	ACG Thr	CCC Pro	GGG Gly 335	GTG Val	1008
GAC Asp	TTT Phe	GGA Gly	AAA Lys 340	AAC Asn	AAA Lys	ACG Thr	AAG Lys	GAG Glu 345	TAT Tyr	ATA Ile	AGG Arg	TTT Phe	GCT Ala 350	TAT Tyr	ACG Thr	1056
AGA Arg	AAG Lys	ATA Ile 355	GAA Glu	GAA Glu	CTT Leu	AAG Lys	GAG Glu 360	GGC Gly	GTT Val	GAA Glu	AGG Arg	ATA Ile 365	AAG Lys	AAG Lys	TTC Phe	1104
			CTT Leu													1122

FIG. 2B





											4					
																ECH CE
ATG Met	TGG Trp	GAA Glu	TTA Leu	GAC Asp 5	CCT Pro	AAA Lys	ACG Thr	CTC Leu	GAA Glu 10	AAG Lys	TGG Trp	GAC Asp	AAG Lys	GAG Glu 15	TAC Tyr	48 N
TTC Phe	TGG Trp	CAT His	CCA Pro 20	TTT Phe	ACC Thr	CAG Gln	ATG Met	AAA Lys 25	GTC Val	TAC Tyr	AGA Arg	GAA Glu	GAA Glu 30	GAA Glu	AAC Asn	H CENTER 1600/2900
CTG Leu	ATA Ile	TTT Phe 35	GAA Glu	CGC Arg	GGA Gly	GAA Glu	GGC Gly 40	GTT Val	TAC Tyr	CTG Leu	TGG Trp	GAC Asp 45	ATA Ile	TAC Tyr	GGC Gly	144
AGG Arg	AAG Lys 50	TAT Tyr	ATA Ile	GAT Asp	GCC Ala	ATA Ile 55	TCT Ser	TCC Ser	CTC Leu	TGG Trp	TGC Cys 60	AAC Asn	GTC Val	CAC His	GGA Gly	192
CAT His 65	AAC Asn	CAC His	CCT Pro	AAA Lys	CTG Leu 70	AAC Asn	AAC Asn	GCA Ala	GTT Val	ATG Met 75	AAA Lys	CAG Gln	CTC Leu	TGT Cys	AAG Lys 80	240
GTA Val	GCT Ala	CAC His	ACA Thr	ACT Thr 85	ACT Thr	CTG Leu	GGA Gly	AGT Ser	TCC Ser 90	AAC Asn	GTT Val	CCC Pro	GCC Ala	ATA Ile 95	CTC Leu	288
CTT Leu	GCA Ala	AAG Lys	AAG Lys 100	CTT Leu	GTA Val	GAA Glu	ATT Ile	TCT Ser 105	CCT Pro	GAA Glu	GGA Gly	TTA Leu	AAC Asn 110	AAG Lys	GTC Val	336
TTT Phe	TAC Tyr	TCC Ser 115	GAA Glu	GAC Asp	GGT Gly	GCG Ala	GAA Glu 120	GCA Ala	GTA Val	GAG Glu	ATA Ile	GCG Ala 125	ATA Ile	AAG Lys	ATG Mét	384
GCT Ala	TAT Tyr 130	His	TAC Tyr	TGG Trp	AAG Lys	AAC Asn 135	AAG Lys	GGA Gly	GTT Val	AAA Lys	GGG Gly 140	AAA Lys	AAC Asn	GTT Val	TTC Phe	432
ATA Ile 145	Thr	CTT Leu	TCC Ser	GAA Glu	GCC Ala 150	TAC Tyr	CAC His	GGG Gly	GAT Asp	ACT Thr 155	GTA Val	GGA Gly	GCG Ala	GTT Val	AGC Ser 160	480
GTA Val	GGG Gly	GGT Gly	ATA Ile	GAA Glu 165	Leu	Phe	His	GIA	Thr	Tyr	AAA Lys	Asp	Leu	Leu	TTC Phe	528
AAG Lys	ACT Thr	ATA Ile	AAA Lys 180	CTC Leu	CCA Pro	TCT Ser	CCT Pro	TAC Tyr 185	Leu	TAC	TGC	AAG Lys	GAA Glu 190	AAG Lys	TAC Tyr	576
GGG Gly	GAA Glu	CTC Leu 195	Сув	CCT Pro	GAG Glu	TGC Cys	ACG Thr 200	Ala	GAT Asp	TTA Leu	TTA Leu	AAA Lys 205	GIII	CTG Leu	GAA Glu	624
GAT Asp	ATC Ile 210	Leu	AAG Lys	TCG Ser	CGG Arg	GAA Glu 215	Asp	ATC Ile	GTT Val	GCG Ala	GTC Val 220	ile	ATG Met	GAA Glu	GCG Ala	672
GGA Gly 225	Ile	CAG Gln	GCA Ala	GCC Ala	GCG Ala 230	Gly	ATG Met	CTC Leu	CCC Pro	TTC Phe 235	Pro	CCG Pro	GGA Gly	TTT Phe	TTG Leu 240	720

FIG. 3A



MAR 0 4 2003

TECH CENTER 1600/2900

																-OH OLITICA
				GAG Glu 245												768
				ACG												816
				GTC Val												864
ACC Thr	GGA Gly 290	GGG Gly	TAC Tyr	CTC Leu	CCG Pro	CTT Leu 295	GCT Ala	GCG Ala	ACA Thr	CTC Leu	ACA Thr 300	ACG Thr	GAC Asp	GAG Glu	GTG Val	912
TTC Phe 305	AAT Asn	GCC Ala	TTT Phe	TTA Leu	GGT Gly 310	GAG Glu	TTC Phe	GGG Gly	GAG Glu	GCA Ala 315	AAG Lys	CAC His	TTT Phe	TAC Tyr	CAC His 320	960
GGG Gly	CAC His	ACC Thr	TAC Tyr	ACT Thr 325	GGA Gly	AAT Asn	AAC Asn	CTC Leu	GCC Ala 330	TGT Cys	TCC Ser	GTT Val	GCA Ala	CTC Leu 335	GCA Ala	1008
AAC Asn	TTA Leu	GAA Glu	GTT Val 340	TTT Phe	GAG Glu	GAA Glu	GAA Glu	AGA Arg 345	ACT Thr	TTA Leu	GAG Glu	AAG Lys	CTC Leu 350	CAA Gln	CCA Pro	1056
AAG Lys	ATA Ile	AAG Lys 355	CTT Leu	TTA Leu	AAG Lys	GAA Glu	AGG Arg 360	CTT Leu	CAG Gln	GAG Glu	TTC Phe	TGG Trp 365	GAA Glu	CTC Leu	AAG Lys	1104
CAC His	GŢT Val 370	GGA Gly	GAT Asp	GTT Val	AGA Arg	CAG Gln 375	CTA Leu	GGT Gly	TTT Phe	ATG Met	GCT Ala 380	GGA Gly	ATA Ile	GAG Glu	CTG Leu	1152
GTG Val 385	AAG Lys	GAC Asp	AAA Lys	GAA Glu	AAG Lys 390	GGA Gly	GAA Glu	CCT Pro	TTC Phe	CCT Pro 395	TAC Tyr	GGT Gly	GAA Glu	AGG Arg	ACG Thr 400	1200
GGA Gly	TTT Phe	AAG Lys	GTG Val	GCT Ala 405	TAC Tyr	AAG Lys	TGC Cys	AGG Arg	GAA Glu 410	AAA eyl	GGG Gly	GTG Val	TTT Phe	TTG Leu 415	AGA Arg	1245
CCG Pro	CTC Leu	GGA Gly	GAC Asp 420	GTT Val	ATG Met	GTA Val	TTG Leu	ATG Met 425	ATG Met	CCT Pro	CTT Leu	GTA Val	ATA Ile 430	GAG Glu	GAA Glu	1293
GAC Asp	GAA Glu	ATG Met 435	AAC Asn	TAC Tyr	GTT Val	Ile	GAT Asp 440	ACA Thr	CTT Leu	AAA Lys	Trp	GCA Ala 445	ATT Ile	AAA Lys	GAG Glu	1341
		Lys		GTG Val												1359

FIG. 3B



MAR 0 4 2003

ATG Met	ACA Thr	TAC Tyr	TTA Leu	ATG Met 5	AAC Asn	AAT Asn	TAC Tyr	GCA Ala	AGG Arg 10	TTG Leu	CCC Pro	GTA Val	AAG Lys	TTT Phe 15	GTA Val	TECH CENTER 1600/2900
												AAG Lys				96
												CAC His 45				144
Lys	CTC Leu 50	ACA Thr	GAA Glu	GCT Ala	CTA Leu	AAA Lys 55	GAA Glu	CAG Gln	GTT Val	GAG Glu	AAA Lys 60	CTC Leu	CTC Leu	CAC His	GTT Val	192
TCA Ser 65	AAT Asn	CTT Leu	TAC Tyr	GAA Glu	AAC Asn 70	CCG Pro	TGG Trp	CAG Gln	GAA Glu	GAA Glu 75	CTG Leu	GCT Ala	CAC His	AAA Lys	CTT Leu 80	240
GTA Val	AAA Lys	CAC His	TTC Phe	TGG Trp 85	ACA Thr	GAA Glu	GGG Gly	AAG Lys	GTA Val 90	TTT Phe	TTC Phe	GCA Ala	AAC Asn	AGC Ser 95	GGA Gly	288
ACG Thr	GAA Glu	AGT Ser	GTA Val 100	GAG Glu	GCG Ala	GCT Ala	ATA Ile	AAG Lys 105	CTC Leu	GCA Ala	AGG Arg	AAG Lys	TAC Tyr 110	TGG Trp	AGG Arg	336
GAT Asp	AAA Lys	GGA Gly 115	AAG Lys	AAC Asn	AAG Lys	TGG Trp	AAG Lys 120	TTT Phe	ATA Ile	TCC Ser	TTT Phe	GAA Glu 125	AAC Asn	TCT Ser	TTC Phe	384
CAC His	GGG Gly 130	AGA Arg	ACC Thr	TAC Tyr	GGT Gly	AGC Ser 135	CTC Leu	TCC Ser	GCA Ala	ACG Thr	GGA Gly 140	CAG Gln	CCA Pro	AAG Lys	TTC Phe	432
CAC His 145	Lys	GGC Gly	TTT Phe	GAA Glu	CCT Pro 150	CTA Leu	GTT Val	CCT Pro	GGA Gly	TTT Phe 155	TCT Ser	TAC Tyr	GCA Ala	AAG Lys	CTG Leu 160	480
AAC Asn	GAT Asp	ATA Ile	GAC Asp	AGC Ser 165	GTT Val	TAC Tyr	AAA Lys	CTC Leu	CTA Leu 170	Asp	GAG Glu	GAA Glu	ACC Thr	GCG Ala 175	GGG Gly	528
ATA Ile	ATT Ile	ATT Ile	GAA Glu 180	Val	ATA Ile	CAA Gln	GGA Gly	GAG Glu 185	Gly	GGA Gly	GTA Val	AAC Asn	GAG Glu 190	GCG Ala	AGT Ser	576
GAG Glu	GAT Asp	TTT Phe 195	CTA Leu	AGT Ser	AAA Lys	CTC Leu	CAG Gln 200	GAA Glu	ATT Ile	TGT Cys	AAA Lys	GAA Glu 205	AAA Lys	GAT Asp	GTG Val	624
CTC Leu	TTA Leu 210	Ile	ATA Ile	GAC Asp	GAA Glu	GTG Val 215	CAA Gln	ACG Thr	GGA Gly	ATA Ile	GGA Gly 220	AGG Arg	ACC Thr	GGG Gly	GAA Glu	672
TTC Phe 225	Tyr	GCA Ala	TAT Tyr	CAA Gln	CAC His 230	Phe	AAT Asn	CTA Leu	AAA Lys	CCG Pro 235	qaA	GTA Val	ATT Ile	GCG Ala	CTT Leu 240	720

FIG. 4A



MAR 0 4 2003

TECH CENTER 1600/2900

														GCA Ala 255		768
														ACC Thr		816
														GAT Asp	GAA Glu	86 4
														TTC Phe	AAA Lys	912
GAA Glu 305	AAA Lys	CTG Leu	AAG Lys	GAA Glu	CTC Leu 310	GGC Gly	AAA Lys	GGA Gly	AAG Lys	GTA Val 315	AAG Lys	GGA Gly	AGA Arg	GGA Gly	TTG Leu 320	960
ATG Met	CTC Leu	GGT Gly	CTT Leu	GAA Glu 325	CTT Leu	GAA Glu	AGA Arg	GAG Glu	TGT Cys 330	AAA Lys	GAT Asp	TAC Tyr	GTT Val	CTC Leu 335	AAG Lys	1008
					TTC Phe		_									1032

FIG. 4B



NTC.	ccc	222	CTC	ccc	GNG	ccc	aca	CNC	222	CTTC.	NCC	ccc	The control of the co	ccc	N.C.C	4.8
														Pro 15		40
														GAA Glu		96
GTC Val	ATC Ile	AAT Asn 35	TTC Phe	GGG Gly	GCG Ala	GGG Gly	GAG Glu 40	CCG Pro	GAC Asp	TTC Phe	GAT Asp	ACA Thr 45	CCG Pro	GAA Glu	CAC His	144
ATC Ile	AAG Lys 50	GAA Glu	GCG Ala	GCG Ala	AAG Lys	CGA Arg 55	GCT Ala	TTA Leu	GAT Asp	CAG Gln	GGC Gly 60	TTC Phe	ACC Thr	AAG Lys	TAC Tyr	192
ACG Thr 65	CCG Pro	GTG Val	GCT Ala	GGG Gly	ATC Ile 70	TTA Leu	CCT Pro	CTT Leu	CGG Arg	GAG Glu 75	GCC Ala	ATA Ile	TGC Cys	GAG Glu	AAG Lys 80	240
CTT Leu	TAC Tyr	CGC Arg	GAC Asp	AAT Asn 85	CAA Gln	CTG Leu	GAA Glu	TAC Tyr	AGC Ser 90	CCG Pro	AAT Asn	GAG Glu	ATC Ile	GTG Val 95	GTC Val	288
TCC Ser	TGT Cys	GGC Gly	GCC Ala 100	AAG Lys	CAT His	TCT Ser	ATT Ile	TTC Phe 105	AAC Asn	GCT Ala	CTG Leu	CAG Gln	GTC Val 110	CTC Leu	CTG Leu	336
GAC Asp	CCG Pro	GGG Gly 115	GAC Asp	GAG Glu	GTG Val	ATA Ile	ATC Ile 120	CCC Pro	GTC Val	CCC Pro	TAC Tyr	TGG Trp 125	ACT Thr	TCC Ser	TAT Tyr	384
CCG Pro	GAG Glu 130	CAG Gln	GTG Val	AAG Lys	CTG Leu	GCG Ala 135	GGA Gly	GGG Gly	GTG Val	CCG Pro	GTT Val 140	TTC Phe	GTC Val	CCC Pro	ACC Thr	432
TCT Ser 145	CCC Pro	GAG Glu	AAC Asn	GAC Asp	TTC Phe 150	AAG Lys	CTC Leu	AGG Arg	CCG Pro	GAA Glu 155	GAT Asp	CTA Leu	CGT Arg	GCG Ala	GCT Ala 160	480
GTA Val	ACC Thr	CCG Pro	CGC Arg	ACC Thr 165	CGC Arg	CTT Leu	TTG Leu	ATC Ile	CTC Leu 170	AAT Asn	TCC Ser	CCG Pro	GCC Ala	AAC Asn 175	CCC Pro	528
ACA Thr	GGC Gly	ACC Thr	GTT Val 180	TAC Tyr	CGC Arg	CGG Arg	GAG Glu	GAA Glu 185	CTT Leu	ATC Ile	GGC Gly	TTA	GCG Ala 190	GAG Glu	GTA Val	576
GCC Ala	CTG Leu	GAG Glu 195	GCC Ala	GAC Asp	CTA Leu	TGG Trp	ATC Ile 200	TTG Leu	TCG Ser	GAC Asp	GAG Glu	ATC Ile 205	TAC Tyr	GAA Glu	AAG Lys	624
CTG Leu	ATC Ile 210	TAC Tyr	GAC Asp	GGG Gly	ATG Met	GAG Glu 215	CAC His	GTG Val	AGC Ser	ATA Ile	GCC Ala 220	GCG Ala	CTC Leu	.GAC Asp	CCG Pro	672
GAG Glu 225	GTC Val	AAA Lys	AAG Lys	CGC Arg	ACG Thr 230	ATT Ile	GTG Val	GTA Val	AAC Asn	GGT Gly 235	GTT Val	TCC Ser	AAG Lys	GCT Ala	TAC Tyr 240	720

FIG. 5A

RECEIVED

MAR 0 4 2003



															ATA Ile	768
	CAG Gln				-		-									816
	GTA Val															864
	GTG Val 290															912
	CAG Gln															960
GGG Gly	GCC Ala	TTT Phe	TAC Tyr	GTC Val 325	TTT Phe	CCA Pro	GAA Glu	GTT Val	GAG Glu 330	CGG Arg	GCT Ala	TTT Phe	GGG Gly	CCG Pro 335	CCG Pro	1008
TCT Ser	LŸs YYY	AGG Arg	ACG Thr 340	GGA Gly	TAA Asn	ACT Thr	ACC Thr	GCT Ala 345	AGC Ser	GAC Asp	CTG Leu	Ala	CTT Leu 50	TTC Phe	CTC Leu	1056
CTG Leu	GAA Glu	GAG Glu 355	ATA Ile	AAA Lys	GTG Val	GCC Ala	ACC Thr 360	GTG Val	GCT Ala	GGG Gly	GCT Ala	GCC Ala 365	TTT Phe	GGG Gly	GAC Asp	1104
GAT Asp	CGC Arg 370	TAC Tyr	CTG Leu	CGC Arg	TTT Phe	TCC Ser 375	TAC Tyr	GCC Ala	CTG Leu	CGG Arg	CTG Leu 380	GAA Glu	GAT Asp	ATC Ile	GAA Glu	1152
GAG Glu 385	GGG Gly	ATG Met	CAA Gln	CGG Arg	TTT Phe 390	AAA Lys	GAA Glu	TTG Leu	ATC Ile	GAA Glu 395	GCG Ala	GCA Ala	CTT Leu	TAA End		1197

FIG. 5B



MAR 0 4 2003



ATG	TGC	GGG	ATA	GTC	GGA	TAC	GTA	GGG	AGG	GAT	TTA	GCC	CTT	сст	ATA	48
. Met	Сув	GIĄ	11e	vai 5	GLY	Tyr	Val	Gly	Arg 10	Asp	Leu	Ala	Leu	Pro 15	Ile	
GTC Val	CTC Leu	GGA Gly	GCT Ala 20	CTT Leu	GAG Glu	AGA Arg	CTC Leu	GAA Glu 25	TAC Tyr	AGG Arg	GGT Gly	TAC Tyr	GAC Asp 30	TCC Ser	GCG Ala	96
					GAA Glu											144
					CTC Leu											192
					GGT Gly 70											240
					CAC His											288
					ATA Ile											336
CTA Leu	AAG Lys	AAG Lys 115	GAA Glu	GGT Gly	GTA Val	AAG Lys	TTC Phe 120	AGG Arg	TCC Ser	GAA Glu	ACA Thr	GAC Asp 125	ACA Thr	GAA Glu	GTT Val	384
					GCG Ala											432
GTT Val 145	TTA Leu	AAA Lys	ACC Thr	GTA Val	AAG Lys 150	AAA Lys	TTA Leu	AAG Lys	GGT Gly	GCT Ala 155	TTT Phe	GCC Ala	TTT Phe	GCG Ala	GTT Val 160	480
ATA Ile	ACG Thr	GTT Val	CAC His	GAA Glu 165	CCA Pro	AAC Asn	AGA Arg	CTA Leu	ATA Ile 170	GGA Gly	GTG Val	AAG Lys	CAG Gln	GGG Gly 175	AGT Ser	528
					CTC Leu											576
ATT Ile	CCC Pro	GCA Ala 195	ATA Ile	CTT Leu	CCT Pro	TAC Tyr	ACG Thr 200	AAA Lys	AAG Lys	ATT Ile	ATT Ile	GTT Val 205	CTT Leu	GAT Aap	GAC Asp	624
					CTG Leu		Pro									672
					TCA Ser 230											720

FIG. 6A

RECEIVED

MAR 0 4 2003



GTT TCT GCG GAA AAG GGT GGT TTT AAA CAC TTC ATG CTA AAA GAG ATA Val Ser Ala Glu Lys Gly Gly Phe Lys His Phe Met Leu Lys Glu Ile TAC GAA CAG CCC AAA GCC ATA AAC GAC ACA CTC AAG GGT TTC CTC TCA Tyr Glu Gln Pro Lys Ala Ile Asn Asp Thr Leu Lys Gly Phe Leu Ser ACC GAA GAC GCA ATA CCC TTT AAG TTA AAA GAC TTC AGA AGG GTT TTA Thr Glu Asp Ala Ile Pro Phe Lys Leu Lys Asp Phe Arg Arg Val Leu ATA ATA GCG TGC GGG ACC TCT TAC CAC GCG GGC TTC GTC GGA AAG TAC Ile Ile Ala Cys Gly Thr Ser Tyr His Ala Gly Phe Val Gly Lys Tyr TGG ATA GAG AGA TTT GCA GGT GTT CCC ACA GAG GTA ATT TAC GCT TCG
Trp Ile Glu Arg Phe Ala Gly Val Pro Thr Glu Val Ile Tyr Ala Ser GAA TTC AGG TAT GCG GAC GTT CCC GTT TCG GAC AAG GAT ATC GTT ATC Glu Phe Arg Tyr Ala Asp Val Pro Val Ser Asp Lys Asp Ile Val Ile GGA ATT TCC CAG TCA GGA GAG ACC GCT GAC ACA AAG TTT GCC CTT CAG Gly Ile Ser Gln Ser Gly Glu Thr Ala Asp Thr Lys Phe Ala Leu Gln TCC GCA AAG GAA AAG GGA GCC TTT ACC GTG GGA CTC GTA AAC GTA GTG Ser Ala Lys Glu Lys Gly Ala Phe Thr Val Gly Leu Val Asn Val Val 360 GGA AGT GCC ATA GAC AGG GAG TCG GAC TTT TCC CTT CAC ACA CAT GCG Gly Ser Ala Ile Asp Arg Glu Ser Asp Phe Ser Leu His Thr His Ala GGA CCC GAA ATA GGC GTG GCG GCT ACA AAG ACC TTC ACC GCA CAG TTC Gly Pro Glu Ile Gly Val Ala Ala Thr Lys Thr Phe Thr Ala Gln Phe 385 ACC GCA CTC TAC GCC CTT TCG GTA AGG GAA AGT GAG GAG AGG GAA AAT Thr Ala Leu Tyr Ala Leu Ser Val Arg Glu Ser Glu Glu Arg Glu Asn CTA ATA AGA CTC CTT GAA AAG GTT CCA TCA CTC GTT GAA CAA ACA CTG Leu Ile Arg Leu Leu Glu Lys Val Pro Ser Leu Val Glu Gln Thr Leu AAC ACC GCA GAA GAA GTG GAG AAG GTA GCG GAA AAG TAC ATG AAA AAG Asn Thr Ala Glu Glu Val Glu Lys Val Ala Glu Lys Tyr Met Lys Lys AAA AAC ATG CTT TAC CTC GGA AGG TAC TTA AAT TAC CCC ATA GCG CTG Lys Asn Met Leu Tyr Leu Gly Arg Tyr Leu Asn Tyr Pro Ile Ala Leu GAG GGA GCT CTT AAA CTT AAA GAA ATT TCT TAC ATA CAC GCG GAA GGT Glu Gly Ala Leu Lys Leu Lys Glu Ile Ser Tyr Ile His Ala Glu Gly 465 TAT CCC GCA GGG GAG ATG AAG CAC GGT CCC ATA GCC CTC ATA GAC GAA Tyr Pro Ala Gly Glu Met Lys His Gly Pro Ile Ala Leu Ile Asp Glu

FIG. 6B

RECEIVED

MAR 0 4 2003



AAC Asn	ATG Met	CCG Pro	GTT Val 500	GTG Val	GTA Val	ATC Ile	GCA Ala	CCG Pro 505	AAA Lys	GAC Asp	AGG Arg	GTT Val	TAC Tyr 510	GAG Glu	AAG Lys	153	36
ATA Ile	CTC Leu	TCA Ser 515	AAC Asn	GTA Val	GAA Glu	GAG Glu	GTT Val 520	CTC Leu	GCA Ala	AGA Arg	AAG Lys	GGA Gly 525	AGG Arg	GTT Val	ATT Ile	158	34
TCT Ser	GTA Val 530	GGC Gly	TTT Phe	AAA Lys	GGA Gly	GAC Asp 535	GAA Glu	ACT Thr	CTC Leu	AAA Lys	AGC Ser 540	AAA Lys	TCC Ser	GAG Glu	AGC Ser	163	32
GTT Val 545	ATG Met	GAA Glu	ATC Ile	CCG Pro	AAG Lys 550	GCA Ala	GAA Glu	GAA Glu	CCG Pro	ATA Ile 555	ACT Thr	CCT Pro	TTC Phe	TTG Leu	ACG Thr 560	168	80
GTA Val 580	Ile	CCC Pro	CTG Leu	CAA Gln 565	CTC Leu	TTT Phe	GCC Ala	TAC Tyr	TTT Phe 570	ATA Ile	GCG Ala	AGC Ser	AAA Lys	CTG Leu 575	GGA Gly	172	28
CTG Leu	GAT Asp	GTG Val	GAT Asp 580	CAG Gln	CCG Pro	AGA Arg	AAT Asn	CTC Leu 585	GCC Ala	AAA Lys	ACG Thr	GTC Val	ACG Thr 590	GTG Val	GAA Glu	177	76
TAA End								_								177	79

FIG. 6C

RECEIVED

MAR 0 4 2003



																	•
ATG Met	ATA Ile	CCC Pro	CAG Gln	AGG Arg 5	ATT Ile	AAG Lys	GAA Glu	CTT Leu	GAA Glu 10	GCT Ala	TAC Tyr	AAG Lys	ACG Thr	GAG Glu 15	GTC Val	4	8
ACT Thr	CCC Pro	GCC Ala	TCC Ser 20	GTC Val	AGG Arg	CTT Leu	TCC Ser	TCT Ser 25	AAC Asn	GAA Glu	TTC Phe	CCC Pro	TAC Tyr 30	GAC Asp	TTT Phe	9	6
CCC Pro	GAG Glu	GAG Glu 35	ATA Ile	AAA Lys	CAA Gln	AGG Arg	GCC Ala 40	TTA Leu	GAA Glu	GAA Glu	TTA Leu	AAA Lys 45	AAG Lys	GTT Val	CCC Pro	14	4
TTG Leu	AAC Asn 50	AAA Lys	TAC Tyr	CCA Pro	GAC Asp	CCC Pro 55	GAA Glu	GCG Ala	AAA Lys	GAG Glu	TTA Leu 60	AAA Lys	GCG Ala	GTT Val	CTT Leu	19	2
GCG Ala 65	GAT Asp	TTT Phe	TTC Phe	GGC Gly	GTT Val 70	AAG Lys	GAA Glu	GAA Glu	AAT Asn	TTA Leu 75	GTT Val	CTC Leu	GGT Gly	AAC Asn	GGT Gly 80	24	0
TCG Ser	gac Asp	GAA Glu	CTC Leu	ATA Ile 85	TAC Tyr	TAC Tyr	CTC Leu	TCA Ser	ATA Ile 90	GCT Ala	ATA Ile	GGT Gly	GAA Glu	CTT Leu 95	TAC Tyr	28	8
ATA Ile	CCC Pro	GTT Val	TAC Tyr 100	ATA Ile	CCT Pro	GTT Val	CCC Pro	ACC Thr 105	TTT Phe	CCC Pro	ATG Met	TAC Tyr	GAG Glu 110	ATA Ile	AGT Ser	33	6
GCG Ala	AAA Lys	GTT Val 115	CTC Leu	GGA Gly	AGA Arg	CCC Pro	CTC Leu 120	GTA Val	AAG Lys	GTT Val	CAA Gln	CTG Leu 125	GAC Asp	GAA Glu	AAC Aśn	38	4
TTT Phe	GAT Asp 130	Ile	GAC Asp	TTA Leu	GAA Glu	AGA Arg 135	AGT Ser	ATT Ile	GAA Glu	TTA Leu	ATA Ile 140	GAG Glu	AAA Lys	GAA Glu	AAA Lys	43	2
CCC Pro 145	Val	CTC Leu	GGG Gly	TAC Tyr	TTT Phe 150	GCT Ala	TAC Tyr	CCA Pro	AAC Asn	AAC Asn 155	CCC Pro	ACG Thr	GGA Gly	AAC Asn	CTC Leu 160	4.8	0
TTT Phe	TCC Ser	AGG Arg	GGA Gly	AAG Lys 165	Ile	GAG Glu	GAG Glu	ATA Ile	AGA Arg 170	AAC Asn	AGG Arg	GGT Gly	GTT Val	TTC Phe 175	TGT Cys	52	8
GTA Val	ATA Ile	GAC Asp	GAA Glu 180	Ala	TAC Tyr	TAT Tyr	CAT	TAC Tyr 185	Ser	GGA Gly	GAA Glu	ACC Thr	TTT Phe 190	neu	GAA Glu	57	6
GAC Asp	GCG Ala	CTC Leu 195	Lys	AGG Arg	GAA Glu	GAT Asp	ACG Thr 200	Val	GTT Val	TTG Leu	AGG Arg	ACA Thr 205	rea	TCA Ser	AAA Lys	62	4
ATC Ile	GGT Gly 210	Met	GCG Ala	AGT Ser	TTA Leu	AGG Arg 215	GTA Val	GGG Gly	ATT	TTA Leu	ATA Ile 220	GIY	AAG Lys	GGG Gly	GAA Glu	67	2
ATC Ile 225	Val	TCA Ser	GAA Glu	ATT	AAC Asn 23	Lys	GTG Val	AGA Arg	CTC Leu	CCC Pro 235	Phe	AAC Asn	GTG Val	ACC Thr	TAC Tyr 240	72	:0
								\frown	7 1								

FIG. 7A

RECEIVED

MAR 0 4 2003



CCC	TCT Ser	CAG Gln	GTG Val	ATG Met 245	GCA Ala	TÀ9	GTT Val	CTC Leu	CTC Leu 250	ACG Thr	GAG Glu	GGA Gly	AGA Arg	GAA Glu 255	TTC Phe	768
CTA Leu	ATG Met	GAA Glu	AAG Lys 260	ATA Ile	CAG Gln	GAG Glu	GTT Val	GTA Val 265	ACA Thr	GAG Glu	CGA Arg	GAA Glu	AGG Arg 270	ATG Met	TAC Tyr	816
GAC Asp	GAA Glu	ATG Met 275	AAG Lys	AAA Lys	ATA Ile	GAA Glu	GGA Gly 280	GTT Val	GAG Glu	GTT Val	TTT Phe	CCG Pro 285	AGT Ser	AAG Lys	GCT Ala	864
AAC Asn	TTC Phe 290	TTG Leu	CTT Leu	TTC Phe	AGA Arg	ACG Thr 295	CCT Pro	TAC Tyr	CCC Pro	GCC Ala	CAC His 300	GAG Glu	GTT Val	TAT Tyr	CAG Gln	912
GAG Glu 305	CTA Leu	CTG Leu	AAA Lys	AGG Arg	GAT Asp 310	GTC Val	CTC Leu	GTC Val	AGG Arg	AAC Asn 315	GTA Val	TCT Ser	TAC Tyr	ATG Met	GAA Glu 320	960
GGA Gly	CTC Leu	CAA Gln	AAG Lys	TGC Cys 325	CTC Leu	AGG Arg	GTA Val	AGC Ser	GTA Val 330	GGG Gly	AAA Lys	CCG Pro	GAA Glu	GAA Glu 335	AAC Asn	1008
AAC Asn	AAG Lys	TTT Phe	CTG Leu 340	GAA Glu	GCA Ala	CTG Leu	GAG Glu	GAG Glu 345	AGT Ser	ATA Ile	AAA Lys	TCC Ser	CTT Leu 350	TCA Ser	AGC Ser	1056
	CTT Leu															1065

FIG. 7B

RECEIVED

MAR 0 4 2003



ATG Met	AAG Lys	Pro	TAC	GCT Ala 5	Lys	TAT	ATC Ile	TGG	CTT Leu 10	qaA .	GGC Gly	AGA Arg	ATA Ile	CTT Leu 15	AAG Lys		48
TGG Trp	GAA Glu	GAC Asp	GCG Ala 20	Lys	ATA Ile	CAC His	GTG Val	TTG Leu 25	Thr	CAC His	GCG Ala	CTT	CAC His	Tyr	GGA Gly	·	96
			Phe										Asp		TTG Leu		144
CTC Leu	GTC Val 50	Phe	AGG Arg	TTA Leu	GAA Glu	GAA Glu 55	CAC His	ATC Ile	GAC Asp	CGC Arg	ATG Met 60	Tyr	AGA Arg	TCG	GCT Ala		192
															CAA Gln 80		240
		CTA Leu															288
		CCT Pro													ATA Ile		336
		TTG Leu 115													AAA Lýs		384
		TCG Ser													AGA Arg		432
		AAT Asn															480
		TCT Ser															528
GAG Glu	GCT Ala	TTA Leu	TTA Leu 180	ATG Met	GAC Asp	GTT Val	Asn	GGT Gly 185	TAT Tyr	GTT Val	GTT Val	GAG Glu	GGT Gly 190	TCT Ser	GGA Gly		576
		ATT Ile 195				Arg											624
His		TCT Ser								qaA							672
AGC Ser 225									Glu								720
								_									

FIG. 8A





														GCA Ala 255		768
											_			GGC Gly	-	816
														GTC Val		864
AGA	GGC	AAA	GTA	GAG	AAA	TAC	TTA	AAT	TGG	ATC	ACT	CCT	GTG	TAT	TAG	912
Arg	Gly 290	Lys	Val	Glu	Lys	Tyr 295	Leu	Asn	Trp	Ile	Thr 300	Pro	Val	Tyr	End	

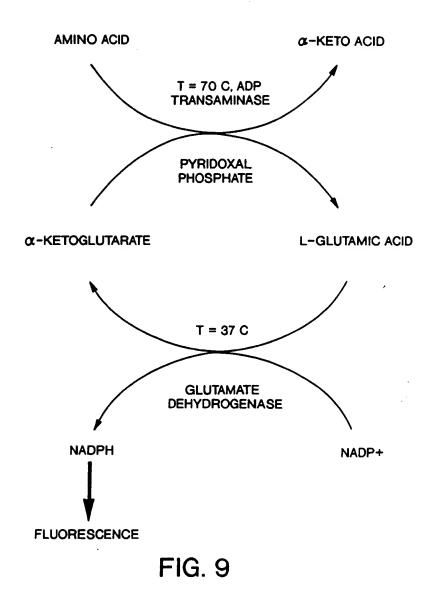
FIG. 8B

RECEIVED

MAR 0 4 2003

TILL JENTER 1600/2000





MAR 0 4 2003